

Data Dictionary for Dataset: Condition of Tidal Wetlands

Column	Column Name / Field Name	Description	Notes
A	Site Number	Unique numeric identifier for each site	Note that blank columns associated with a site indicate either that certain metrics were not collected with the version of the protocol that was used (see protocol links in metadata), or that data for certain metrics are simply missing for that site.
B	Date	Date site was assessed	
C	MidTRAM Version	Version of protocol used to assess site	Note that MidTRAM has been updated many times. Version 2 was never used in the field, so versions in this dataset skip from Version 1.0 to Version 3.0. Not all metrics collected in the past are collected currently, and some metrics that are collected currently were not collected in the past.
D	Watershed	HUC10 watershed that the wetland site is within	Exception is for the Inland Bays watershed, the watershed condition report of which combines three HUC10 watersheds (Rehoboth Bay, Indian River Bay, and Inland Bays)
E	Sub-watershed	HUC12 watershed that the wetland site is within	Exception is for the Inland Bays watershed, where sub-watersheds are either identified to the HUC 10 or HUC 12 level, as the watershed condition report combined three HUC10 watersheds
F	AA moved?	Indicates if the site center point and assessment area had to be	

		moved from the original random location	
G	Reason for moving	Describes why the site center point and assessment area had to be moved from the original random location	
H	Classification	Specifies what type of wetland the site is, according to protocol's classification system	Note that two classification categories (fringing palustrine tidal and expansive palustrine tidal) were added in v.4.1 that were not options in previous versions of the protocol
I	Purpose	Reason for field visit (assessment or reference)	
J	Marsh type	Specifies if wetland is natural or has been manipulated in some way by human activity to be restored, re-established, enhanced, rehabilitated, or impounded	
K	Tide stage	Tidal stage the best represents the AA during the site visit, where 5 is highest and 1 is lowest	
L	Water on surface (cm)	Measurement (cm) that best represents the amount of standing water on the marsh surface in the AA	
M	Marsh community	A general description of the AA based on plant species present	
N	Distance to upland (m)	Estimated distance (m) from the edge of the AA to the closest major upland body that is not an island	
O	Distance to open water (m)	Estimated distance (m) from the edge of the AA to the closest source of open water that is >30m wide	
P	Salinity	Salinity (ppt) of the surface or creek water using a YSI or other digital water quality instrument	
Q	Unveg/mud/sand	Midpoint of percent cover class for unvegetated areas, mud, or sand in the AA	
R	Spartina alterniflora	Midpoint of percent cover class for Spartina alterniflora in the AA	

S	<i>Spartina cynosuroides</i>	Midpoint of percent cover class for <i>Spartina cynosuroides</i> in the AA	
T	<i>Schoenoplectus americanus</i>	Midpoint of percent cover class for <i>Schoenoplectus americanus</i> in the AA	
U	<i>Spartina patens</i> / <i>Distichlis spicata</i>	Midpoint of percent cover class for mixed community of <i>Spartina patens</i> and <i>Distichlis spicata</i> in the AA	
V	<i>Phragmites australis</i>	Midpoint of percent cover class for <i>Phragmites australis</i> in the AA	
W	<i>Iva frutescens</i>	Midpoint of percent cover class for <i>Iva frutescens</i> in the AA	
X	<i>Juncus roemerianus</i>	Midpoint of percent cover class for <i>Juncus roemerianus</i> in the AA	
Y	<i>Spartina alterniflora</i> / <i>Spartina cynosuroides</i>	Midpoint of percent cover class for mixed community of <i>Spartina alterniflora</i> and <i>Spartina cynosuroides</i> in the AA	
Z	root mat	Midpoint of percent cover class for all areas in the AA covered by root mat	
AA	pannes/pools/creeks	Midpoint of percent cover class for pannes, pools, or creeks in the AA	
AB	open water	Midpoint of percent cover class for open water (>30m wide) in the AA	
AC	ditches	Midpoint of percent cover class for ditches in the AA	
AD	unhealthy marsh	Midpoint of percent cover class for unhealthy marsh in the AA (i.e. deterioration or sudden wetland dieback)	
AE	<i>Spartina patens</i>	Midpoint of percent cover class for <i>Spartina patens</i> in the AA	
AF	<i>Distichlis spicata</i>	Midpoint of percent cover class for <i>Distichlis spicata</i> in the AA	
AG	<i>Salicornia virginica</i>	Midpoint of percent cover class for <i>Salicornia virginica</i> in the AA	
AH	Other1%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	

AI	Other1	Description of additional plant community in the AA other than those previously listed	
AJ	Other2%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
AK	Other2	Description of additional plant community in the AA other than those previously listed	
AL	Other3%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
AM	Other3	Description of additional plant community in the AA other than those previously listed	
AN	Other4%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
AO	Other4	Description of additional plant community in the AA other than those previously listed	
AP	Other5%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
AQ	Other5	Description of additional plant community in the AA other than those previously listed	
AR	Other6%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
AS	Other6	Description of additional plant community in the AA other than those previously listed	
AT	Other7%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
AU	Other7	Description of additional plant community in the AA other than those previously listed	
AV	Other8%	Midpoint of percent cover class for an additional plant community	

		in the AA other than those previously listed	
AW	Other8	Description of additional plant community in the AA other than those previously listed	
AX	Other9%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
AY	Other9	Description of additional plant community in the AA other than those previously listed	
AZ	Other10%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
BA	Other10	Description of additional plant community in the AA other than those previously listed	
BB	Other11%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
BC	Other11	Description of additional plant community in the AA other than those previously listed	
BD	Other12%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
BE	Other12	Description of additional plant community in the AA other than those previously listed	
BF	Other13%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
BG	Other13	Description of additional plant community in the AA other than those previously listed	
BH	Other14%	Midpoint of percent cover class for an additional plant community in the AA other than those previously listed	
BI	Other14	Description of additional plant community in the AA other than those previously listed	

BJ	Depth of organic layer (cm)	Describes how deep the organic layer extended below the surface in a soil sample at the site	
BK	Stability of AA	Describes the current physical stability of the wetland within the AA	
BL	B1: Estimated % with 5m-buffer	Percent of AA perimeter that has at least 5m of natural or semi-natural condition land cover	This metric was collected up through protocol Version 3.
BM	B1: % with 5m-buffer rating	Metric rating based on percent of AA perimeter that has at least 5m of natural or semi-natural condition land cover	This metric was collected up through protocol Version 3.
BN	B1: Estimated % with 10m-buffer	Percent of AA perimeter that has at least 5m of natural or semi-natural condition land cover that is at least 10m in width	This metric has been collected for Versions 4 and 4.1.
BO	B1: % with 10m-buffer rating	Metric rating based on percent of AA perimeter that has at least 5m of natural or semi-natural condition land cover that is at least 10m in width	This metric has been collected for Versions 4 and 4.1.
BP	B2: Avg. buffer width	Average buffer width (m) surrounding the AA that is in natural or semi-natural condition	This metric was collected up through protocol Version 3.
BQ	B2: Avg. buffer width rating	Metric rating based on average buffer width (m) surrounding the AA that is in natural or semi-natural condition	This metric was collected up through protocol Version 3.
BR	B2: % natural land uses in buffer	Percent of the buffer area that is contiguous between the AA and 250m buffer edge and in a natural or semi-natural state	This metric has been collected for Versions 4 and 4.1.
BS	B2: % natural land uses in buffer rating	Metric rating based on percent of the buffer area that is contiguous between the AA and 250m buffer edge and in a natural or semi-natural state	This metric has been collected for Versions 4 and 4.1.
BT	B3: % surrounding development	Percent of developed land within 250m from the edge of the AA	This metric was collected up through protocol Version 3.
BU	B3: Surrounding development rating	Metric rating based on percent of developed land within 250m from the edge of the AA	This metric was collected up through protocol Version 3.
BV	B3: Altered/high impact land use % unnatural	Percent of the buffer area that is an altered (unnatural) land use	This metric has been collected for Versions 4 and 4.1.

BW	B3: Altered/high impact land use % high impact	Percent of the buffer area that is a high impact land use	This metric has been collected for Versions 4 and 4.1.
BX	B3: Altered/high impact land use rating	Metric rating based on percent of the buffer area that is an altered (unnatural) land use or a high impact land use	This metric has been collected for Versions 4 and 4.1.
BY	B4: 250m landscape condition	Landscape condition within 250m surrounding the AA center point based on the nativeness of vegetation, disturbance to substrate, and extent of human visitation	
BZ	B5: Marsh habitat richness # of communities	Number of different communities and habitats found within 250m of the AA	This metric was only collected in Version 1.
CA	B5: Marsh habitat richness rating	Metric rating based on the number of different communities and habitats found within 250m of the AA	This metric was only collected in Version 1. Note that metric rating was different here than for other metrics; here, sites could receive a 12, 8, or 4 instead of a 12, 9, 6, or 3.
CB	B5/6: Barriers to landward migration % perimeter obstructed	Percent of landward perimeter of wetland within 250m that has physical barriers preventing wetland migration inland	This metric was listed as B6 in Version 1, and B5 in all other versions.
CC	B5/6: Barriers to landward migration rating	Metric rating based on percent of landward perimeter of wetland within 250m that has physical barriers preventing wetland migration inland	This metric was listed as B6 in Version 1, and B5 in all other versions.
CD	H1: Ditching & draining rating	Metric rating based on the extent of ditching and draining in the AA (none, low, moderate, or severe)	This metric was collected up through protocol Version 3.
CE	H1: Ditching & excavation (OMWM) rating	Metric rating based on the percent of the AA that had excavated ditches or OMWM pools	This metric has been collected for Versions 4 and 4.1. In Version 4.1, it is collected for saltwater wetlands only (not tidal freshwater).
CF	H1b:Point sources tidal fresh rating	Metric rating based on the extent of point sources (absent, low, moderate, or high) in the AA and 250m buffer (tidal freshwater wetlands only)	This metric was only collected in Version 4.1, for tidal freshwater wetlands only.

CG	H2: Estimate % fill	Estimated percent of the AA that has fill	Note that the way this metric is scored has changed throughout different versions of the protocol.
CH	H2: Fill rating	Metric rating based on the estimated percent of the AA that has fill	Note that the way this metric is scored has changed throughout different versions of the protocol.
CI	H3: Diking & restriction rating	The presence of dikes or other tidal flow restrictions	Note that the way this metric is scored has changed throughout different versions of the protocol.
CJ	H4: Point source rating	Metric rating based on the extent of point sources (absent, low, moderate, or high) in the AA and 250m buffer	This metric was collected up through protocol Version 3.
CK	H4: Docks/duck blinds rating	Area of AA and buffer covered by man-made structures, such as docks and duck blinds	This metric was only collected in Version 4.
CL	HAB1: Structural patch type # patches	Number of different types of structural habitat patch types found within the AA	This metric was only collected in Version 1.
CM	HAB1: Structural patch type rating	Metric rating based on the number of different types of structural habitat patch types found within the AA	This metric was only collected in Version 1.
CN	HAB1/2: Bear cap: final-initial avg.	Average bearing capacity, a measure of soil resistance (cm)	Note that the way this metric is scored has changed throughout different versions of the protocol.
CO	HAB1/2: Bear cap: hollows present?	Indicates if the wetland was composed partially of hollows (low, soft, unvegetated areas) in the AA	Note that the way this metric is scored has changed throughout different versions of the protocol.
CP	HAB1/2: Bear cap % hollows	Estimated percent of the AA that is composed of hollows (when hollows are present)	Note that the way this metric is scored has changed throughout different versions of the protocol.
CQ	HAB1/2: Bear cap rating	Metric rating based on average measure of soil resistance (cm)	Note that the way this metric is scored has changed throughout

			different versions of the protocol.
CR	HAB2: Horizontal veg obs avg. 4 subplot totals	Average number of blocks visible on vegetation board at sub-plots	This metric has been collected for Versions 3 through 4.1. Note that the way this metric is scored has changed throughout different versions of the protocol; the metric rating was based on average subplot totals for Versions 3 and 4.
CS	HAB2: Horizontal veg obs % obs	Visual horizontal obstruction by vegetation at 0.25 to 1.25m heights measured in 0.25m intervals with a cover board	This metric has been collected for Versions 3 through 4.1. Note that the way this metric is scored has changed throughout different versions of the protocol; the metric rating is based on percent obstruction for Version 4.1.
CT	HAB2: Horizontal veg obs rating	Metric rating based on calculations of visual horizontal obstruction by vegetation on a vegetation board at various heights.	This metric has been collected for Versions 3 through 4.1. Note that the way this metric is scored has changed throughout different versions of the protocol.
CU	HAB3: Plant fragments rating	Metric rating based on the volume of plant fragments in the upper soil horizon	This metric was only collected in Version 1.
CV	HAB3/5: # plant layers	A count of the number of plant layers in the AA	This metric was listed as HAB5 in Version 1, and is listed as HAB3 in all other versions.
CW	HAB3/5: # plant layers rating	Metric rating based on the count of plant layers in the AA	This metric was listed as HAB5 in Version 1, and is listed as HAB3 in all other versions.
CX	HAB4: Vertical biotic structure rating	Metric rating based on the interspersions and complexity of the vegetation community	This metric was only collected in Version 1.
CY	HAB4/6: % invasive co-dominant species	Percent of co-dominant non-native, invasive species in the AA	This metric was collected up through protocol Version 3. It was listed as HAB6 in protocol Version

			1, and as HAB4 in Version 3.
CZ	HAB4/6: % invasive co-dominant species rating	Metric rating based on the percent of co-dominant non-native, invasive species in the AA	This metric was collected up through protocol Version 3. It was listed as HAB6 in protocol Version 1, and as HAB4 in Version 3.
DA	HAB4: Species richness count	Count of different plant species found in the AA	This metric has been collected for Versions 4 and 4.1.
DB	HAB4: Species richness rating	Metric rating based on the count of different plant species found in the AA	This metric has been collected for Versions 4 and 4.1.
DC	HAB5/7: % invasive	Percent cover of invasive plant species in the AA	This metric was listed as HAB7 in protocol Version 1, and as HAB5 in all other protocol versions.
DD	HAB5/7: % invasive rating	Metric rating based on the percent cover of invasive plant species in the AA	This metric was listed as HAB7 in protocol Version 1, and as HAB5 in all other protocol versions.
DE	Buffer attribute score	Overall score of all buffer attributes combined based on protocol formula	Note that calculation of score is slightly different depending on version of protocol.
DF	Hydro attribute score	Overall score of all hydrology attributes combined based on protocol formula	Note that calculation of score is slightly different depending on version of protocol.
DG	Habitat attribute score	Overall score of all habitat attributes combined based on protocol formula	Note that calculation of score is slightly different depending on version of protocol.
DH	QDR	Qualitative Disturbance Rating	
DI	Final score	The final score of a wetland site on a scale of 0 to 100	Note that calculation of score is slightly different depending on version of protocol.
DJ	Condition category	Condition category that the wetland falls within (minimally, moderately, or severely stressed) based on final score	